

## **PREDICATE QUESTIONS AT A TRIAL WITH GC/MS (#17-35)**

1) Could you please state and spell your full name?

2) Where are you currently employed?

Dept of Public Health – Drug Lab

3) How long have you been employed with the State Drug Laboratory?

7 years

3a) What is your title?

Chemist II

4) What are the duties and responsibilities as a chemist at the Drug Laboratory?

To analyze and confirm unknown substances, as well as run and maintain the QC/QA program in the drug lab

5) What formal education have you received?

6) Have you also received specialized training in the field of drug analysis and identification?

6 week in house training by the supervisor or senior chemist

DEA basic forensic chemist training @ DEA headquarters

7) Can you explain in general how you receive substances from police agencies?

Samples are submitted by the police dept. A drug receipt is filled out documenting the police dept, submitting officer and a description of the sample/s. The sample is assigned a Lab sample # and a gross weight. A control card is generated with the pertinent information from the drug receipt. The sample and the control card is placed into a manila envelope with the corresponding lab # and placed into the safe until the sample is assigned to a chemist.

8) Once the substance(s) have been logged in, are they assigned to a particular chemist for testing and analysis?

Samples are assigned randomly to any of the chemist.

9) How do you receive case assignments for testing and analysis?

Basically, I will ask the evidence officer for samples and they will assign me samples randomly.

10) What happens when you are assigned a case?

The evidence officer will log out and assign me the samples. I will then check each manila envelope to make sure the control card, lab # and sample correspond with each other

11) Approximately how many times have you had occasion to test for a controlled substance?

10s of thousands

12) In particular have you received training and learned how to test the presence of \_\_\_\_\_ (drug) ? Cocaine:

yes

13) Can you describe the test(s) to determine whether a substance contains \_\_\_\_\_ (drug) ? Cocaine:

We perform prelim test which include 4 spot test and microcrystalline test

14) If cocaine is present, what happens during that test (those tests)?

If cocaine is present, cobalt thiocyanate test will turn from a pink to blue. Microcrystalline test will then be performed to determine the isomers and the diastereomers of cocaine is present. Basically, it is a structural ID of cocaine to tell the presence of D vs L cocaine. L being the naturally occurring cocaine.

15) Does this test have a name/ Do these tests have names?

Cobalt thiocyanate, Gold chloride and TLTA

16) Did you have an opportunity to analyze some substances in this case?

Yes. Presumptively positive for cocaine

17) Where you the GC/MS chemist in this case?

No

18) What does GC/MS stand for?

Gas chromatography/Mass spectroscopy

19) Can you explain how the GC/MS works?

GC will separate each compound according to retention time and the MS will breakdown each compound in to specific ions, which is like a fingerprint of each molecule. No two molecules are exactly the same.

20) Have you received training in GC/MS?

yes

21) Do you take a proficiency test at the end of that training?

yes

22) How many times have you had occasion to analyze (cocaine, heroin etc) samples by GC/MS?

10s of thousands

23) How was this sample submitted to GC/MS?

A small amount of sample is placed into a vial with methanol. The vial is sealed and labeled with the appropriate lab #. The vial, control card and MS control sheet is submitted to the GC/MS lab by the primary chemist

24) Was it labeled with lab number \_\_\_\_\_?

25) How do you know that the GC/MS is working properly?

Tune report is generated for each instrument prior to use. This will determine if the MS is working correctly. QC mix is injected into the system to determine if the GC is working correctly. Blanks are placed on each run to check for contamination.

26) When you analyzed the GC/MS results of \_\_\_\_\_, what did you look for?

Compare the retention time and ions of the unknown sample to the standard. In this case the standard was cocaine.

27) What were your findings?

cocaine

28) What did you do next?

Control card is filled out with the results, initial of the 2<sup>nd</sup>-ary chemist and the date analyzed. Then the control card is submitted to back to the evidence office to generate a C of A

29) Was a report/certificate generated?

yes

30) I am placing a document before you do you recognize that document? How?

Yes. Certificate of analysis for Lab #....

31) Did you generate that document?

No...evidence office

32) Did you include the information that you received with this substance on this document?

Yes ...determine to be cocaine

33) Is that your signature on the document?

yes

34) Does this document relate to these drugs?

Lab #

35) How do you know that these drugs relate to this drug certificate?

Lab #